

THE INFLUENCE OF TEACHER APPLICANTS' AGE, SEX, AND
PHYSICAL ATTRACTIVENESS ON ELEMENTARY SCHOOL PRINCIPALS'
EMPLOYMENT SCREENING DECISIONS

By

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Abstract of Dissertation Presented to the Graduate School of the
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Given the need for improved employment screening procedures in educational organizations, the purpose of the study was to investigate the influence of elementary school teacher applicants' age, sex, and extent of physical attractiveness on employment screening decisions made by principals. Sixty-nine elementary school principals from a single central Florida school district rated bogus resumes of teacher applicants in terms of the likelihood that they would invite these applicants for an interview. Each of the three independent variables studied had two levels: older versus younger, male versus female, and attractive versus unattractive. The attractiveness variable was transmitted via a photograph placed at the top of each resume. Photographs of attractive

and unattractive individuals were selected in a pilot study utilizing a rank-order technique. Answers were sought to four basic research questions. The first three questions involved the influence of each of the three main teacher applicant variables (i.e., age, sex, and physical attractiveness) on the employment screening decisions made by principals (the dependent variable). The fourth question involved investigation of the interaction effects of teaching applicants' age, sex, and physical attractiveness on the employment screening decisions. The data obtained were analyzed using a 2x2x2 factorial analysis of variance.

Analysis of the data revealed a significant ($p < .01$) main effect for age in that younger applicants were more likely to be invited for an interview than older applicants, and also a significant ($p < .01$) main effect for physical attractiveness in that attractive applicants were more likely to be invited for an interview than unattractive applicants. No significant main effect was found for sex. Of the three first order interactions analyzed, the only one to reach statistical significance ($p < .05$) was the interaction of sex and physical attractiveness. The nature of the interaction was such that attractive males were more likely to be invited for an interview than unattractive males and all females, but unattractive males were the least likely of any other category to be invited for an interview. The single second order interaction of age, sex, and physical attractiveness did not reach statistical significance.

CHAPTER I INTRODUCTION

Unfair employment discrimination has long been a reality in both the public and private sectors of American society (Baroni, 1981; Bonds, 1980; Cohen & Bunker, 1975; Hagen & Cann, 1975). However, a number of legislative actions have been initiated in an attempt to eliminate at least a portion of this unfair discrimination in employment situations (Age Discrimination in Employment Act, 1967; Equal Employment Opportunity Act, 1972; Equal Opportunity Commission, 1970). Novick and Ellis (1977) also called attention to numerous court decisions prohibiting employment discrimination on the basis of personal characteristics not directly related to the requirements of a given job. In the wake of fair employment legislation and related court decisions, it has become clear that arbitrary hiring standards not significantly related to job function are forbidden.

Although the ratification of employment discrimination legislation and the reinforcement of this legislation by the courts has resulted in efforts by test specialists, psychologists, and others to detect and eliminate discrimination in the standardized evaluation and interview phases of personnel recruitment and selection (Albermarle Paper Company vs. Moody, 1975; Dipboye, Arvey, & Terpstra, 1976; Griggs vs. Duke Power Company, 1971), several authors have questioned the effectiveness of

these attempts. Siegel (1980), for example, clearly outlined the many pitfalls associated with personnel testing in all employment situations -- particularly as these relate to federal equal employment opportunity laws. Further, he cited data indicating that a remarkably high percentage of employment tests used by both business organizations and governmental agencies had virtually no empirical validation. Focusing on the interview phase of the job candidate selection process, Asch and Kroeker (1975) concluded that most interview procedures were lacking in both reliability and validity. Dipboye, Arvey, and Terpstra (1976) asserted that "the personnel interview is no substitute for well designed and valid objective tests as predictors of job success . . . [and that the interview may] have an adverse impact on the hiring of protected groups" (p. 522). Dipboye, Fromkin, and Wilback (1975) concluded that interviewer judgment was frequently based on superficial characteristics (i.e., sex, race, attractiveness, and dress) which are typically not related to subsequent job performance.

While the literature regarding personnel recruitment and selection is repleat with studies related to the testing and the interview phases of the process, research data related to the preliminary aspects of personnel selection (i.e., the screening of applicants prior to testing or the selection interview) is relatively sparse (Bonds, 1980). Obviously, the best job applicants cannot be selected via testing and interviewing procedures if they are eliminated in the initial screening phases. This premise applies equally as well to employment situations in the public sectors as it does to employment in private sectors, and managers of public school systems require an increased understanding of their own judgment processes when making screening decisions regarding potential employees of these systems of education. The operation of

public school systems is certainly "big business" in the United States at essentially all levels of government (Kimbrough & Nunnery, 1983), and the importance of obtaining the best possible instructional personnel cannot be overemphasized for the well being of all of the clients of public education.

The Problem

The focus of the study was to investigate the job applicant screening process for classroom teachers in a large urban school district. Specifically, the study was focused on the following research questions:

1. What is the influence of the teaching applicants' age upon employment screening decisions made by elementary school principals?
2. What is the influence of the teaching applicants' sex upon employment screening decisions made by elementary school principals?
3. What is the influence of the teaching applicants' extent of physical attractiveness upon employment screening decisions made by elementary school principals?
4. What is the influence of the interactions of the teaching applicants' age, sex, and physical attractiveness on screening decisions made by elementary school principals?

Delimitations and Limitations

Due to the design characteristics and the procedures implemented, the study was subject to the following delimitations and limitations:

Delimitations

1. The research study was confined to the Orange County Public Schools (OCPS) in central Florida.

2. Only three independent variables and selected interactions of these variables were investigated. It was realized that many other variables might also be of interest, but were beyond the scope of the study.

3. The data source for the investigation was the judgments of 69 elementary school principals employed in Orange County Public Schools during the 1985-86 school year. These judgments related to the principals' ratings of eight bogus resumes constructed by the researcher.

4. Photographs used in the employment resumes' depicted only white, non-Hispanic individuals.

5. Directions to the principals specified that employment candidates should be considered only for full-time regular classroom teaching positions. No other type of teaching position was considered.

Limitations

1. Since directions to the principals included the information that the applicant resumes' that were being rated were fictitious, and to be used for research purposes only, the study may be somewhat lacking in ecological validity (Ary, Jacobs, & Razavieh, 1979).

2. Because the study was not truly experimental in design, causal inferences cannot be made. The aim was to simply "describe what exists" (Ary, Jacobs, & Razavieh, 1979, p. 295).

3. Population validity can be established only to the extent that the characteristics of another school system are similar to those of Orange County Public Schools.

Justification for the Study

While the legal basis for elimination of unfair and discriminatory hiring practices appears quite well established, the practical aspects of fair hiring practices in public education systems may be especially important. It stands to reason that the quality of educational experiences within a given school is dependent on the competency of the individuals who directly deliver these experiences to students. Classroom teachers are the individuals charged with this responsibility, and if the best possible applicants for teaching positions are not selected, the quality of educational opportunities available to students will suffer. Research related to teacher recruitment is pivotal because principals must discriminate among large numbers of applicants in order to select the most qualified individuals to carry out the duties of a teacher in the public schools. This selection problem for principals has become even more complex with the passage of fair employment provisions which demand that hiring decisions must take into account only those factors which are copiously related to the job. McQuaig (1972) emphasized the importance of hiring the best possible person in a very practical and succinct manner:

Your success as a manager depends on your ability to accomplish results through your subordinates. No matter how capable you are, it is impossible for you to run a successful department on your own. For this reason, it is vital that you learn the techniques of selecting people who can achieve results under your direction.

Some organizations find that 20% of their salesmen sell 80% of their output. Similarly, you will find in most departments that a small number of employees contribute more than their share to productivity. Imagine the effectiveness of your business if all your workers were as productive as this small group!

By selecting the best person available you can save yourself hours of work because most managers spend thirty to seventy percent of their time working with their weak employees -- correcting their mistakes, guiding them, motivating them, or worrying about them. (p. 17)

Hiring of the best applicants for teaching positions is critical for the success of each school and school district. More importantly, it is critical for the success of each child. This success cannot be achieved unless screening procedures and decisions are viable and meaningful. The present study was directed specifically at providing information as to how principals make such screening decisions.

The practical value of such information has several facets. First, if significant differences in how principals rate teaching applicants on the basis of the three main variables of the study were found, systems of public education (as well as other areas of employment) may need to sensitize those individuals within the organization responsible for making employment screening decisions to the potential for making such unfair and inappropriate screening decisions. Second, it may be appropriate for educational systems to actually eliminate the use of any personal information found to be the source of unfair discrimination from resume information available to school managers making employment screening decisions. Finally, if none of the independent variables or combinations of these variables were found to be important factors in principals' employment screening decisions, it would certainly seem that this information would be of value in defending against unfounded claims of unfair employment discrimination, enhancing employment selection procedures with the public, and merely increasing the "peace of mind" of those making employment decisions that these variables do not appear to carry a great deal of conscious or unconscious weight in employment screening decisions.

Assumptions

Three major assumptions applied to the research study. The first assumption was that the principals acting as respondents in the study approached the task seriously and responded honestly to the questions asked in the survey. The second assumption was that the bogus resumes used in the study resembled actual resumes typically evaluated by principals in that actual resumes commonly include information relating to the applicant's age, sex, and physical attractiveness via an attached photograph. The third assumption was that the nonindependence of principal's ratings of the eight bogus resumes was not a significant factor in the statistical analysis of data obtained in the study. This third assumption is discussed more thoroughly in the "Statistical Analysis" section of Chapter III.

Definition of Terms

Principal. A person employed during the 1985-86 school year as an elementary school principal in the Orange County Public School System.

Teacher applicant. A hypothetical person applying for a hypothetical regular classroom teaching position in an elementary school.

Preliminary screening evaluation. The first stage of personnel selection wherein a principal peruses the written resumes of teacher applicants.

Screening decision. A decision made by a principal which indicates the likelihood that a given teacher applicant would be invited for a personal, face-to-face interview for a position.

Physical attractiveness. The relative degree of facial attractiveness of a teacher applicant as depicted in a photograph attached to that applicant's resume.

Organization of the Study

The remainder of the study is organized into four chapters. The review of related literature represents the second chapter. Procedures and methods of analysis are presented in the third chapter. The fourth chapter contains the analysis and discussion of the findings. A summary of the study, along with conclusions and implications, comprises the fifth chapter.

CHAPTER II REVIEW OF RELATED LITERATURE

The review of related literature is presented in five major sections. The first section is an overview of literature related to human judgment and decision making. This topic is covered first since it undergirds any selection or screening process (formal or informal) which might be employed by an elementary school principal. This section is followed by a section on sex stereotypes, a section on age stereotypes, and a section on physical attractiveness stereotypes. These sections relate to the three independent variables to be examined in the proposed study. As the studies relating to these three independent variables are reviewed, attention is given to the methodologies utilized these studies in order to provide the reader with an understanding of how the methodology of the present research is consistent with the procedures employed in prior research of a similar nature.

Human Judgment and Decision Making

While it seems obvious that human judgment and decision making are key factors underlying the personnel recruitment and selection process, a large body of research exists which documents that people are prone to systematic errors in these processes (Kaplan & Swartz, 1977). Even the

very earliest studies of how people perceive other people demonstrated wide differences in perceivers' judgments of others (Thorndike, 1920). Much of the research that has been conducted may be divided into two main categories or theories which lead to a myriad of possible hypotheses. These two groups are (a) expectancy theory (Kaplan & Swartz, 1977) and (b) attribution theory (Jones et al., 1971).

Expectancy theory may very appropriately be traced back to Vroom (1964), who made the first explicit formulations as applied to organizational behavior. Since its introduction to the scholarly community, Vrooms' expectancy theory has been described as very widely followed. Wahba and House (1974), for example, described Vrooms' theory as "perhaps the most widely accepted theory of work and motivation among today's industrial and organizational psychologists" (p. 121). Generally, an individual's "expectancy" was defined by Vroom as that individual's belief concerning the probability that the behavior in question will be followed by an outcome of interest (Vroom, 1964). Lawler (1973) described expectancy theory as a member of a class of theories based on the idea that

the strength of a tendency to act in a certain way depends on the strength of an expectancy that the act will be followed by given consequence (or outcome) and the value of that consequence (or outcome) to the actor. (p. 45)

Thus, expectancy theory would tend to explain a principal's decision concerning a teaching applicant in terms of that principal's expectancy that the decision will result in outcomes that are of value to that principal.

In relation to expectancy theory, attribution theory is, in many ways, its logical opposite. Whereas expectancy theory generally attempts

to predict how an individual will behave, attribution theory is concerned with how people explain why a person has behaved in a certain manner. This explanation is, in turn, assumed to be a basis for future behavior. Jones et al. (1971) offered the following general orientation:

Attribution theory deals with the rules the average individual uses to infer the causes of observed behavior. Thus, it concerns what Heider has called "naive psychology" - the cause-effect analysis of behavior by the "man on the street." At present attribution theory is an amorphous collection of observations about naive causal inference. (p. x)

Attribution theory would, therefore, be used as a basis to explain a behavior that has already taken place, and may also be the basis of future behavior in that people would be expected to make judgments in terms of the way in which they have explained why a given behavior or decision has resulted in a particular outcome. This theory would tend to explain a principal's screening decision regarding a teaching applicant in terms of the ways in which he or she has explained the causes of behaviors (good or bad) in individuals he or she has previously observed.

In a summarized comparison of research in attribution and judgment research (often termed expectancy research) Fischhoff (1976) offered an enlightened viewpoint.

Formally, the two areas [i.e., attribution theory and expectancy theory] differ in their respective subject matter: prediction and explanation. More striking, however, is the difference in the picture of men and women which emerges from them. Attribution researchers find people to be effective processors of information who organize their world in a systematic manner prone to relatively few biases. Judgment researchers reveal people to be quite inept at all but the simplest inferential tasks - and sometimes even at them - muddling through a world that seems to let them get through life by gratuitously allowing for a lot of error.

Why do these divergent images emerge from research in these two areas? One possible explanation is that people are excellent explainers, but poor predictors. (p. 421)

In addition to theory and research involving the concepts of attribution and expectancy, a key factor in decisions one makes about others is the concept of "person perception." Warr and Knapper (1966a) defined person perception as "the attributions of certain characteristics, values, intentions, etc. to a stimulus person" (p. 244). Fischbein (1967) also referred to "dispositions of perceivers" (p. 478) which he defined as generalized attitudes toward others which represent the pooled evaluative response to the hierarchy of beliefs about the stimulus class being considered. Thus, the perceivers' evaluation of a stimulus person is considered to be, at least in part, a function of the perceivers' disposition toward the particular class or group to which this stimulus person belongs. An excellent example of research regarding person perception exists in Asch's classic experiment (Asch, 1946) using only two stimulus words. Asch found that manipulating the stimulus word "warm" to its affective opposite "cold," among a list of six other trait adjectives referring to stimulus individuals, yielded amazingly different qualitative impressions by the subjects of the study. The aim of this study, and others like it, was to determine how subjects synthesize different elements of information to arrive at a general impression of other people.

Asch's pioneering studies, and others to follow, dealt with what Warr and Knapper (1966b) have referred to as "indirect" person perception, where the perceiver and the percept are not in close uninterrupted contact. In other words, there is no face to face interaction. A principal's screening of potential candidates for a teaching position using resumes represents an example of such a situation. A number of studies have demonstrated that the nature of the mediation in indirect person perception can make a tremendous difference

in the judgments made about the stimulus person by the perceiver. An early study by Warr and Knapper (1966a), for example, provided evidence that indirect person perception can be markedly altered when two mildly different narrative accounts of the same behavior are presented in a newspaper account. A follow-up study by Warr and Knapper (1966b) demonstrated that the addition of a photograph to the narrative newspaper account significantly modified the subjects' attitudes toward the stimulus person in the article. An early study by Thornton (1943) in which subjects were asked to rate individuals on the basis of photographs suggested that such factors as lighting in the photograph, whether or not the stimulus person was wearing glasses, and a serious versus a smiling pose could make statistically significant differences in the ratings of male and female subjects on a number of personality variables.

The results of much of the research concerning human judgment and decision making suggests that they are significantly affected by rather subtle factors in the situation, as well as by more obvious ones. Studies involving indirect person perception (e.g., principals' evaluations of resumes) have suggested that this type of situation may be particularly prone to judgmental errors on the part of the perceiver (Thornton, 1943). However, the exact nature of the genesis of these errors remains somewhat ambiguous and requires further investigation.

Sex Stereotypes

Although discrimination in employment on the basis of an individual's sex has been clearly forbidden for many years, a rather large body of research exists which documents differences in treatment of

males versus treatment of females in many social and employment situations. Studies have indicated that males are often evaluated professionally and socially by a different set of criteria than are females, and also that male and female judges often perceive the same person very differently (Cecil, Paul, & Olins, 1973; Deaux, 1976; Lynch, 1975; Mischel, 1974; Spence & Helmreich, 1972).

Spence and Helmreich (1972), for example, used four videotaped interviews of females to see how they were liked by male and female college students. The two independent variables investigated were the competency/incompetency variable and the stereotypically masculine/feminine interests of the female being videotaped. The Attitudes Toward Women Scale was administered to all subjects and the data were analyzed with a 2 x 2 factorial analysis of variance (ANOVA). It was found that male subjects preferred masculine and competent females the least, with the other two combinations in between. Female subjects preferred the competent and masculine females the most, but made no significant distinctions between the other three groups. Another very significant finding of the study was that independent of the main variable of stereotypically masculine/feminine interests, males who held traditional attitudes toward women preferred incompetent females to a statistically significant greater extent than competent females. The more traditional the male attitudes, the greater the tendency to prefer incompetent to competent females.

Hagen and Kahn (1975) investigated the hypothesis that attitudes in a hypothetical situation may be quite different from attitudes during actual interactions. Hagen and Kahn hypothesized that males would like competent females less than competent males or incompetent females in

interaction situations where competition was present, and would be more likely to reject competent females from the group than they would competent males or competent females who were just being observed. Three dependent measures (liking, leadership, and exclusion from the group) were obtained. An overall main effect for competency was expected, except for males in direct interaction with females. Additionally, the Attitudes Toward Women Scale was administered in an attempt to replicate the Spence and Helmreich (1972) finding that only highly traditional males discriminate against competent women. As predicted, it was found that male subjects liked the competent female only when they merely observed her performance and were not involved in competitive interactions. Males tended to like other males most when they were competing with them and least when just observing them. On the other hand, males tended to like females least when they were competing with them and most when just observing them. No such differences were found with female subjects. With regard to the dependent measure of exclusion from the group, it was found that both male and female subjects were more likely to exclude a competent female from the group than a competent male and were more likely to include an incompetent female than an incompetent male. Correlations between scores on the Attitude Toward Women Scale and the dependent measures revealed that traditional males only discriminated against women in the competitive condition. The more traditional the male, the more likely he was to exclude the competent female from the group, and the less likely he was to assign her high status. The authors interpreted the data from their study to suggest that while a competent female may be given a job commensurate with her skills, those working with her may not like her and she will be more likely to lose favor, and her job, than an equally qualified man.

A study by Shaffer and Wexley (1974) supports the view that employers may have mixed feelings about hiring competent women. Their findings indicated that competent women described as expressing a feminine sex role preference were judged as more socially attractive and were preferred as work partners over competent masculine-oriented women. On the other hand, both male and female subjects indicated that they would rather hire the competent masculine-oriented woman.

Evidence of sexual stereotyping, and discrimination, in university employment situations is provided by Fidell (1970) who sent descriptive paragraphs of hypothetical applicants to the department chairs of 228 colleges and universities offering graduate degrees in psychology. The hypothetical applicants varied along nine dimensions (e.g., sex, marital status, publication rate, intelligence). The chairs were asked to judge their current impressions about the likelihood of the hypothetical applicant being offered a full-time position in psychology. The results of the study revealed significant support for the assertion that women are discriminated against in this particular employment situation.

Although the preponderance of research involving possible sexual discrimination in employment suggests bias against females (Astin, 1972; Ferber & Loeb, 1973; Fidell, 1970; Schmuck, 1975), a number of studies suggest that males may also suffer from discrimination in certain employment situations. This type of reverse discrimination was demonstrated in the results of a study by Cohen and Bunker (1975) in which 150 job recruiters from two universities were asked to evaluate employment information on one hypothetical job applicant (either male or female) for a male-oriented position (personnel technician) or a female-oriented position (editorial assistant) in order to make a subsequent hiring decision. The authors found that hiring decisions were not

influenced independently by the sex of the applicant or the position for which he or she was applying, but rather by the interaction of these two variables. Significantly more females than males were recommended for hiring for the editorial assistant position, while significantly more males were recommended for the personnel technician position ($p < .001$).

Sexual stereotyping for both males and females was also discovered by Mischel (1974) who asked male and female high school and college students to rate journal articles from several diverse fields. The independent variables were the ascribed sex of the author, the male versus female association with the field in which the article was written (e.g., law versus primary education), and the sex and age of the subjects asked to evaluate the articles. Results of the study indicated that both male and female high school and college students displayed sex bias in evaluating the journal articles. Judges tended to prefer authors whose sex was strongly associated with the professional field in which the article was written. Females were rated higher in areas usually associated with women (e.g., dietetics) and males were rated higher in fields such as city planning. A similar kind of selective sexual discrimination situation was found by Rosen and Jerdee (1974) when they conducted a series of four separate experiments which confirmed that while male bank supervisors tended to discriminate against female employees in personnel decisions involving promotion, development, and supervision, they tended to discriminate against male employees in personnel decisions involving competing role demands stemming from family circumstances.

In order to investigate possible ways in which sexual discrimination might be reduced in employee selection situations, Siegfried (1982) used explicit warnings against sex discrimination. The independent variables

manipulated in the study were the sex of the applicant and the presence or absence of an equal opportunity warning in bogus transcripts evaluated by 48 male and 48 female subjects. Results of the study indicated that the explicit warning had very limited effects on the ratings of female applicants, but significant effects on the ratings of male applicants competing for the same job. Both male and female raters tended to boost the ratings of male applicants under the warning condition, while the ratings of female applicants tended to remain quite stable. The author hypothesized a "reactance" explanation whereby the raters reacted negatively to the warning restriction, but had only a limited set of options for expressing displeasure. The result was a boosting of ratings for males, while females were probably evaluated fairly (in a nonrelative sense).

Further evidence of the resilience of sex stereotyping in employment situations is provided by Macke (1981) who tested the hypothesis that one's sex is more salient than occupational competencies for persons in opposite-sex dominated occupations. The author determined male-dominated occupations to include such jobs as clergyman, medical doctor, and craftsman. Female-dominated occupations included areas such as nurse, school teacher, and social worker. Salience was assessed indirectly by examining the impact of sex-related versus job-related characteristics on a global measure of self-esteem. Findings of the study tended to support the authors' initial hypothesis in that while sex salience was present for all respondents, occupational competencies were important only for those in same sex-dominated occupations.

Age Stereotypes

Chronological age is an important factor used to judge people in many areas of life. On most employment and personnel data forms age is requested. In social situations people generally select those of their own age. In selecting people in myriads of social and work situations, age looms important. Butler (1980) contended that age stereotyping is a persistent problem in American society and suggested that

there are three distinguishable yet interrelated aspects to the problem of ageism: 1) Prejudicial attitudes toward the aged, toward old age, and toward the aging process, including attitudes held by the elderly themselves; 2) discriminatory practices against the elderly, particularly in employment, but in other social roles as well; and 3) institutional practices and policies which, often without malice, perpetuate stereotypic belief about the elderly, reduce their opportunities for a satisfactory life and undermine their personal dignity. (p. 8)

With some of these problems in mind, the major thrust of the 1967 federal Age Discrimination in Employment Act (ADEA) was to prohibit age discrimination reflected in the hiring, remuneration, job assignment, and discharge practices of employers (Baroni, 1981). The protected group included individuals between the ages of 40 and 65, and the 1978 amendments to this act raised the age limit from 65 to 70 years of age. Despite this legislation, however, a number of studies suggest that age stereotyping and discrimination in many employment situations are still present (Locke-Connor & Walsh, 1980; Purcell & Torrence, 1980; Roness, 1983; Rosen & Jerdee, 1977; Seyfarth & Bost, 1982). Further, in her survey of aerospace employees, Kasschau (1976) found that half of those 273 people who responded to a questionnaire regarding age discrimination felt that they had personally experienced some form of age

discrimination. Men, women, hourly personnel, and salaried personnel all reported such experiences with similar frequency.

Bergman (1980) suggested that in our society the ideal age is 30 and that deviations in either direction often result in age discrimination. Rosen and Jerdee (1976) provided some empirical support for this assertion in a study in which 56 realtors and 56 undergraduate business students were asked to rate the average 60-year-old person and the average 30-year-old person on 65 personal characteristics. These characteristics were then scored on four worker-qualification dimensions. The 60-year-old person was rated lower on performance capacity and lower on potential development, while the 30-year-old person was rated lower on stability. No differences were found in ratings of the interpersonal skills dimension. The authors concluded that the overall findings were suggestive of an age group stereotype that depicts an older person as potentially less employable than a younger person - particularly for highly demanding and challenging positions.

The idea that older people may be seen as generally less employable than younger persons received support from a descriptive study by Rones (1983) who found that older workers were far less likely to find employment than were their younger counterparts. Although a possible explanation was initially posited that older workers may "hold out" for jobs with salaries which more closely approximate their previous employment, further analysis indicated that their willingness to take lower paying jobs was no less than that of younger workers.

In addition to data suggesting that older workers may have more difficulty than their younger counterparts in obtaining employment, research exists which indicates that there may be differential treatment of older versus younger individuals who are currently employed. A study

by Rosen and Jerdee (1977) certainly suggests that this is often the case. A survey mailed to a national sample of 6,000 Harvard Business Review subscribers, representing a cross-section of managers from a variety of industries and job functions, asked respondents to choose from a number of options designed to assess their attitudes toward various policy issues - including policies regarding the employment of older workers. The materials being rated were hypothetical incidents depicting various problems associated with staffing and managing a new division. The age of the hypothetical worker being assessed (younger versus older employees) was systematically manipulated in the alternate forms used. The authors reached the following conclusions based on the results of the study:

- 1) Managers perceive older employees to be relatively inflexible and resistive to change. Accordingly, managers make much less effort to give an older person feedback about needed changes in performance.
- 2) Few managers provide organizational support for the career development and retraining of older workers.
- 3) Promotional opportunities for older workers are somewhat restricted, particularly when the new positions demand creativity, mental alertness, or capacity to deal with crisis situations. (p. 98)

It should be noted, however, that in addition to the previously mentioned conclusions, the authors indicated that when the participants in the study were asked directly for their opinions regarding management policies for older workers, most indicated that they strongly favored greater affirmative action efforts for this group. As such Rosen and Jerdee (1977) concluded that the differential treatment of older employees was the result of respondents' unconscious age stereotypes rather than conscious discrimination.

Evidence that employee age discrimination may be present in educational as well as in industrial situations is provided in a study by Seyfarth and Bost (1982). The reported purpose of this study was to learn whether or not school administrators held stereotyped beliefs about the capabilities of older teachers to perform certain tasks, and whether or not they were willing to recommend younger versus older teachers for promotion or reassignment to positions of responsibility. The subjects of the study were 233 principals and assistant principals of public secondary schools in a cross section of the United States. The instrument used in the study presented three commonplace types of situations, or cases, in which a teacher was considered for promotion or reassignment to a position within a hypothetical school district. In Case 1, a teacher was sought for a talented and gifted class; Case 2 described a search for a high school assistant principal; and Case 3 involved selecting a teacher to attend a summer inservice workshop. All three cases were included in the materials to be rated by each respondent and the only variable manipulated in the alternate forms was the age of the teacher being considered. Two measures were obtained for each case. The first, "stereotyping," was derived from an item on which respondents rated each candidate on an attribute required for the position. In Case 1 the attribute was creativity; in Case 2 the attribute was energy level; and in Case 3 the attribute was ability to learn. The second measure obtained was "favorability" and referred to the degree to which the administrator had reservations about the teacher being considered. Results were analyzed using a nonparametric analysis of variance procedure. Both the "stereotyping" and the "favorability" measures were statistically different for younger versus older employees in all three

cases described. The differences were significant at the .05 level or higher and were consistently in favor of the younger teachers.

Physical Attractiveness Stereotypes

It is well documented that one's physical attractiveness is an important variable in virtually all personal and professional situations (Dion, Berscheid, & Walster, 1972; Cash, Gillen, & Burns, 1977; Mills & Aronson, 1965). Researchers have consistently found that physically attractive individuals were usually perceived as (a) more socially acceptable (Byrne, London, & Reeves, 1968; Stroebe, Insko, Thompson, & Layton, 1971); (b) more influential in a wide variety of situations (Dion & Stein, 1978; Puckett, Petty, Cacioppo, & Fischer, 1983); and (c) more desirable as candidates for employment (Dipboye, Fromkin, & Wilback, 1975; Cann, Siegfried, & Peirce, 1981). Additionally, researchers such as Miller (1970) and Dion, Berscheid, and Walster (1972) have found that physically attractive men and women are consistently rated more favorably than more unattractive individuals on a wide variety of other personal characteristics.

The idea that an individual's physical attractiveness may affect how they are accepted by others in social situations is certainly not a new one, and research evidence has supported this contention. Bar-Tal and Saxe (1976) offered such evidence in a study in which two experiments were conducted to investigate the implications of a generalized physical attractiveness stereotype. In the first experiment, male and female college students evaluated photographs of ostensibly married couples who were either similar or dissimilar in their level of physical

attractiveness. In the second experiment the same stimulus persons were presented as unassociated individuals. Results of the first experiment indicated that while female spouses were evaluated rather independently of their husbands level of physical attractiveness, evaluation of male spouses was related to the female's level of physical attractiveness on a number of dependent variables. Results of the second experiment confirmed the existence of a generalized positive stereotype for physical attractiveness in that attractive males and females were evaluated more positively on virtually all of the dependent variables than less attractive individuals.

Further support for the presence of a generalized physical attractiveness stereotype is presented in a somewhat earlier study by Miller (1970) in which 360 male and 360 female undergraduate students rated photographs of stimulus persons, both male and female, who had been previously categorized as either high, moderate, or low on a 9-point scale of physical attractiveness. Subjects were asked to record their impressions of the stimulus persons on an adjective checklist containing some 17 different personality dimensions. Results of the study indicated significant effects for physical attractiveness on 15 of the 17 personality dimensions. The consistent pattern which emerged was that of the unattractive person being associated with the negative pole of the personality dimensions, and the attractive person being judged significantly more positively. In a related study by Dion, Berscheid, and Walster (1972) 30 male and 30 female subjects were asked to rate photographs of stimulus persons who had been previously rated as either high, moderate, or low in physical attractiveness. The stimulus photographs were rated on a wide variety of traits which fell into two

general categories or clusters. The first cluster related to overall social desirability and the second cluster was related to the expectancy of leading happy and successful lives. It was found that physically attractive individuals were consistently rated higher on the traits making up both of the general clusters, with no interaction between the sex of the judge and the sex of the stimulus person in the photograph.

Although the majority of studies investigating physical attractiveness stereotypes have utilized young adults (usually college students) as subjects, and also young adults as stimuli persons, Dion and Berscheid (1974) provided evidence that these stereotypes may be present even in very young children. In a study utilizing seventy-seven 4- to 6-year-old subjects in nursery school, the authors implemented a picture board sociometric technique to discover which children were seen as most and least desirable by their classmates. Physical attractiveness of the children involved was rated by 14 adult judges on a 5-point scale in which both facial characteristics and general body build were taken into account. It was found that, with the exception of younger females, unattractive children were less popular than attractive children. Furthermore, unattractive children, particularly males, were more frequently nominated as exhibiting antisocial behaviors than were attractive children. Attractive children were perceived as more self-sufficient and independent in behavior than unattractive children.

In addition to being seen more favorably on a wide variety of personality variables, it has been shown that attractive people may be more persuasive with others. An early study by Mills and Aronson (1965) suggested that the degree of physical attractiveness of a person presenting to an audience may have differential effects on how persuasive that presenter is to the audience. Both male and female presenters were

used in the study, and the audience was composed of male and female undergraduate psychology students. The major results of the study strongly suggested that when the presenter was attractive, he or she was more effective if the intention to persuade the audience was clearly announced. When the communicator was unattractive, the stated intention to persuade had no significant influence on his or her effectiveness. Attractive presenters were found to be generally more persuasive than unattractive presenters in all situations.

Dion and Stein (1978) provide evidence that interpersonal influence may be differentially affected by physical attractiveness even in grade school children. Their study involved giving monetary incentives to selected fifth and sixth grade youngsters contingent upon their influencing a peer's behavior to sample soda crackers coated with an unpleasant flavor. The subjects in the study were rated on an attractiveness scale by unacquainted fifth graders prior to the initiation of the experiment. Generally, the results of the study indicated that attractive females were more successful than unattractive females on their attempts to influence opposite-sex peers, and that unattractive males were more effective than attractive males in influencing same-sex peers. A rather unexpected finding of the study was that while attractive males and attractive females displayed markedly different influence styles, unattractive males and females used very similar influence styles. One possible explanation offered by Dion and Stein was that attractiveness may accentuate sex role demands.

Another study investigating the impact of attractiveness stereotypes on persuasion is provided by Puckett, Petty, Cacioppo, and Fisher (1983). The three independent variables in the study were the age and degree of physical attractiveness of the supposed author of an essay to be rated by

the subjects of the experiment, along with the quality of the essay itself. In a folder with each essay was an information sheet which communicated the supposed authors age (either 21 or 68) and level of physical attractiveness (via a photograph). Subjects were asked to rate the authors of the essays on several author-evaluation scales (e.g., intelligence, likability), and also indicate how persuasive the essay was to them. Data were analyzed with a $2 \times 2 \times 2$ factorial ANOVA. It was found that age of the author had an impact on only a few of the author-evaluation scales and no impact on persuasiveness. On the other hand, attractiveness and essay quality interacted significantly. Attractive authors were rated higher and were more persuasive than unattractive authors when the essay was good, but were viewed more derogatively and unpersuasive relative to unattractive authors when the essay quality was poor.

Although many parameters of physical attractiveness are very important, the nature of this type of stereotyping as it relates to employment seems especially critical due to the fact that it directly affects one's overall livelihood. Moreover, a number of researchers have found physical attractiveness to be a potent variable in decisions made about individuals in employment settings. An example of such research is a study by Dipboye, Fromkin, and Wilback (1975) who asked 30 student interviewers and 30 professional interviewers to rate bogus resumes of candidates for a managerial position. The applicants' sex, physical attractiveness (via a photograph), and scholastic standing were systematically varied on the resumes. Significant main effects were found for all three variables in that males were preferred to females, attractive applicants were preferred to unattractive applicants, and applicants with high scholastic standings were preferred to those with

low scholastic standings. This study was extended when Dipboye, Arvey, and Terpstra (1977) used male and female student interviewers who had been previously classified as either high, moderate, or low on physical attractiveness to rate applicants for employment. The authors predicted a replication of the previous study, as well as a significant interaction between applicant attractiveness and rater attractiveness. As before, results indicated that the subjects were more likely to hire male applicants, highly and moderately physically attractive applicants, and applicants with high scholastic qualifications. However, a significant interaction between applicant attractiveness and rater attractiveness was not found.

In another study relating to employment, Cann, Siegfried, and Pearce (1981) investigated the effect of forced postponement of a hiring decision until after specific qualifications had been examined as a procedure to reduce sex and physical attractiveness discrimination suggested by prior research. Subjects were 96 male and 148 female undergraduate psychology students who reviewed and evaluated a 2-page resume which included a photograph of the applicant. The main independent variables manipulated were the sex and physical attractiveness of the applicant and whether the ratings of specific applicant qualifications preceded or followed an overall hiring decision rating. Results indicated that the order of presentation variable did not significantly affect overall hiring decisions. The sex and physical attractiveness of the applicant did affect hiring decisions, with male and attractive applicants being preferred.

In concluding the review of literature pertaining to physical attractiveness stereotyping in employment situations, a study by Cash, Gillen, and Burns (1977) seems particularly appropriate. The effect of

sexism and "beautyism" in the employment selection decisions made by 72 professional personnel consultants was investigated by asking these consultants to rate the suitability of bogus applicants for various types of employment. Each of the 72 subjects was asked to rate a single fictitious applicant resume for selected masculine, feminine, and neuter jobs, and for alternatives to employment. The resumes were identical with the exception of systematic variation of the applicants' sex and the omission or inclusion of a photograph depicting the applicant as physically attractive or unattractive. The study was designed to test the following a priori hypotheses derived from previous research:

- (a) Males are preferred over females for masculine jobs;
- (b) females are preferred over males for feminine jobs;
- (c) for neuter jobs, attractive applicants are more favorably evaluated than unattractive applicants (sex irrelevant goodness);
- (d) for in-role jobs (i.e., masculine jobs for males and feminine jobs for females), attractive applicants more favorably perceived than unattractive applicants (sex relevant goodness); and
- (e) attractive applicants are attributed greater overall employment potential than unattractive applicants. (p. 302)

Results of the study supported hypothesis (a) at $p < .001$; hypothesis (b) at $p < .001$; and hypothesis (c) at $p < .05$. Hypothesis (d) was supported on the qualification ratings ($p < .05$), but not on the strength of hiring recommendation ($p < .10$). Hypothesis (e) was not supported. Based on the results of their study, the authors arrived at the following conclusions:

In summary, despite objectively equivalent qualifications, job applicants may encounter different employment opportunities that are dependent upon their sex, physical attractiveness, and the sex-role characteristics of the opportunities they seek. Although more than a decade has passed since the legislative prohibition of sex discrimination, bias continues to operate against out-of-role employment for both sexes, and personnel decisions may restrict women to in-role positions to a greater extent than men. Among occupations of low to moderate prestige and skill considered in this investigation, sexism effects were observed more consistently than beautyism effects. Physical attractiveness affects personnel decisions to the general advantage of good-looking applicants, unless they seek jobs considered inappropriate for their sex. (p. 309)

CHAPTER III PROCEDURES AND METHOD OF ANALYSIS

Study Setting

The study was conducted in the Orange County Public Schools located in central Florida. Although the hub of the system is located in metropolitan Orlando, the outside boundaries extend to several semi-rural contiguous areas. It is a large system containing 68 elementary schools, 28 secondary schools, 5 exceptional education schools, and 4 vocational schools with a total student population of 90,666 in 1985. During the 1985-86 school year, Orange County Public Schools employed 484 administrators, 5,284 instructional personnel, and 4,771 classified personnel. The racial/ethnic distribution of students was approximately 68% white, 25% black, and 5% Hispanic. The remaining 2% consisted of students from several other racial/ethnic backgrounds (Orange County Public Schools, 1985).

Population and Sample

The population for this study was composed of 37 male and 34 female elementary school principals in the Orange County Public Schools. Two principals did not participate in the study, resulting in a sample size of 69, or 97% of the total population.

Research Design and Instrumentation

The research design employed in the study involved the construction of bogus resumes, each of which included a photograph of the hypothetical teaching applicant. The photographs used for this purpose were selected from college yearbooks. Photographs of four male and four female applicants were chosen, and the ages of the applicants depicted on the resume were divided into two general categories. The first category included ages ranging from 27 through 34 and the second category included ages 43 through 50. This created a 9-year age gap between the two groups, with a mean age difference of 16 years. The physical attractiveness of the hypothetical applicants was also dichotomized into attractive versus unattractive groups, and a variation of the Bittner-Rundquist (1950) rank-comparison rating method was used to place photographs into the attractive/unattractive categories prior to inclusion on the resumes. According to the authors

the rank-comparison rating method combines features of the ranking and paired-comparison methods. It involves the following general steps:

1. Separation of the total group into random sub-groups.
2. Ranking within sub-groups.
3. Successive merging of sub-groups by a modified paired-comparison method.

The end result is a ranking of the total group from best to poorest achieved without the laborious comparisons involved when large groups are handled by the straight forward paired-comparison method or the confusion that arises in trying to rank a large group. (p. 171)

An explanation of specifically how portions of this technique were applied to the study is provided in Appendix A.

In constructing the resumes to be used in the study, attention was given to constructing them in such a manner as to resemble actual resumes that might be received by an elementary school principal, and also

constructing them so that the subjects would not easily recognize which variables within the resumes were being analyzed. In an attempt to accomplish this goal, eight different basic resumes were created with eight variations of each basic resume. The eight variations were based on the eight possible combinations produced by the three independent variables in the study ($2 \times 2 \times 2 = 8$). Figure 1 provides a graphic representation of the variations of each basic resume. Although the general format for each of the eight basic resumes was the same, the information contained (in addition to the variations produced by the three independent variables) was quite different. This was done in an attempt to mask the actual intent of the study, and also in order to produce a somewhat greater appearance of reality. An example of one of the eight basic resumes with its eight variations is provided in Appendix B.

In order to achieve systematic variation of resume information in relation to the three independent variables that were being investigated in the study, a resume variation matrix was developed. This matrix is presented in Table 1. As can be seen in Table 1, each subject was asked to rate eight resumes representing every possible combination of the three independent variables being investigated. Each subject was asked to place each of the eight resumes into one of four categories. These four categories were as follows:

1. Would not seriously consider inviting for an interview.
2. Would weakly consider inviting for an interview.
3. Would strongly consider inviting for an interview.
4. Would definitely invite for an interview.

Each packet containing the eight resumes to be rated by each subject also contained a page of instructions (Appendix C).

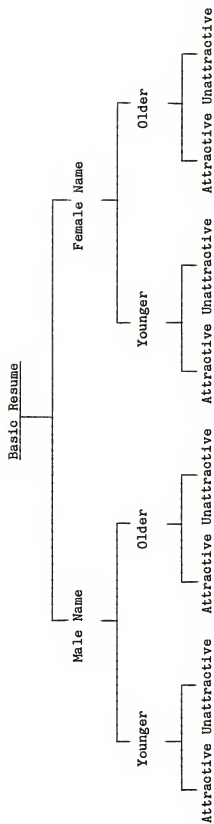


Figure 1

Flow Chart for Basic Resume Variations

Table 1

Matrix for Systematic Variation of Resume Information

Rated by	Resume 1	Resume 2	Resume 3	Resume 4	Resume 5	Resume 6	Resume 7	Resume 8
Principal #								
1	YAF	OUM	OAM	OUF	OAF	YUM	YAM	YUF
2	YUF	YAF	OUM	OAM	OUF	OAF	YUM	YAM
3	YAM	YUF	YAF	OUM	OAM	OUF	OAF	YUM
4	YUM	YAM	YUF	YAF	OUM	OAM	OUF	OAF
5	OAF	YUM	YAM	YUF	YAF	OUM	OAM	OUF
6	OUF	OAF	YUM	YAM	YUF	YAF	OUM	OAM
7	OAM	OUF	OAF	YUM	YAM	YUF	YAF	OUM
8	OUM	OAM	OUF	OAF	YUM	YAM	YUM	YAF

Key: Y = Younger A = Attractive M = Male

O = Older U = Unattractive F = Female

Statistical Analysis

Data obtained in the study were analyzed using a 2x2x2 factorial analysis of variance (ANOVA). A factorial analysis of variance was selected due to the power of the analysis and also due to the ability of the analysis to reveal significant interactions -- considered crucial for complete analysis of the data obtained (Kerlinger, 1973). The following is a summary of the three main effects and four interactions which were analyzed using this technique:

1. Main Effect of Age (A)
2. Main Effect of Sex (S)
3. Main Effect of Physical Attractiveness (P)
4. Interaction (A) x (S)
5. Interaction (A) x (P)
6. Interaction (S) x (P)
7. Interaction (A) x (S) x (P)

Relating these three main effects and four interactions back to the four research questions outlined in the "Statement of the Problem" section in Chapter 1, it should be noted that the first main effect relates to question number 1, the second main effect relates to question number 2, the third main effect relates to question number 3, and the four interactions relate to question number 4.

In order to help justify the use of a factorial ANOVA in data analysis, it was necessary to minimize a major source of potential statistical error in the research design that was employed. This potential source of error was order, or temporal, effects in the subjects ratings of the bogus resumes. A combination of blocking and Latin squares was implemented in an attempt to minimize this source of error

variance. By referring to Table 1 it may be noted that in addition to providing a systematic method for varying resume components, the matrix also provided a method for negating potential error associated with the possibility of subjects rating resumes in a particular order so as to systematically bias the results of the study. Close analysis of the matrix reveals that it is essentially a Latin square, with repeated blocks for each group of eight subjects. Referring to a simple Latin square design in Figure 2, Meyers (1979) stated the following:

Perhaps the most prevalent use of the Latin square design is in situations in which it is desirable to test each subject under all levels of the treatment variable A. Then, the levels of B correspond to individual subjects or groups of subjects and the levels of C correspond to positions of time, for example, successive days of an experiment In the Latin square design, in which orders of A_i are chosen to meet the Latin square requirement, we are able to remove still another source of error variance, the variance due to temporal effects. (p. 252)

	C ₁	C ₂	C ₃
B ₁	A ₁	A ₂	A ₃
B ₂	A ₂	A ₃	A ₁
B ₃	A ₃	A ₁	A ₂

Figure 2

Basic Latin Square Design

As mentioned in the "Assumptions" section of Chapter I, a major assumption was that the fact that each principal rated eight resumes representing all combinations of the three independent variables was not a significant issue in the statistical analysis used in the study. This appeared to be a reasonable assumption due to the fact that each principal rated exactly eight resumes, there were no missing data, and

evaluating teacher applicant resumes is a rather common task for elementary school principals. It should be mentioned, however, that the research design employed in the study did afford the opportunity to implement a somewhat more precise statistical analysis -- an analysis of variance with repeated measures on the principals' rating variable. However, a repeated measures analysis was not used due to extreme difficulty in arranging a computer program to effectively implement this type of multivariate analysis. It should be further noted that because fewer subjects are necessary to obtain the same power on an F test with a repeated measures design (Meyers, 1979), the use of a factorial analysis of variance may have resulted in a somewhat more conservative analysis of the data.

CHAPTER IV PRESENTATION AND DISCUSSION OF THE DATA

The results of the statistical analysis for the four major research questions posed in Chapter I are reported and discussed in this chapter. Data applicable to each question are in the same order as the questions stated in Chapter I.

Findings Relative to Question Number 1

The first major question asked in the study was as follows: What is the influence of the teaching applicant's age upon employment screening decisions made by elementary school principals? Results of the 2x2x2 factorial analysis of variance (ANOVA) shown in Table 2 indicated a significant main effect for the variable of age in that younger teaching applicants (27-34 years) were preferred to a statistically significant greater extent over older teaching applicants (43-50 years) ($F=17.196$, $p < .01$). Inspection of Figure 3 reveals the extent to which younger applicants were judged by principals more likely to be invited for an interview. As indicated, younger applicants received a mean rating score about halfway between "Would weakly consider inviting for an interview" and "Would strongly consider inviting for an interview," while older applicants received a mean rating just above "Would weakly consider inviting for an interview." These results appeared to be generally in

Table 2

Factorial Analysis of Variance on Ratings of Likelihood of Being Invited for an Interview

Source of Variation	df	SS	MS	F Ratio	Significance of F
<hr/>					
<u>Main Effects</u>	3	31.614	10.538	12.629	
Age (A)	1	14.350	14.350	17.196	0.000**
Sex (B)	1	0.219	0.219	0.263	0.608
Attractiveness (C)	1	17.045	17.045	20.427	0.000**
<u>2-Way Interactions</u>	3	5.223	1.741	2.086	
(A) x (B)	1	1.132	1.132	1.357	0.245
(A) x (C)	1	0.089	0.089	0.106	0.744
(B) x (C)	1	4.002	4.002	4.796	0.029*
<u>3-Way Interactions</u>	1	2.480	2.480	2.972	
(A) x (B) x (C)	1	2.480	2.480	2.972	0.085
Residual (Error)	544	0.834	5.617	6.731	
<hr/>					

*p. < .05

**p. < .01

line with the majority of the research reviewed on age stereotypes in that younger job candidates were, in general, preferred over older candidates. Seyfarth and Bost (1982), for example, found that younger teachers were significantly more likely to be considered more favorably than older teachers for promotion or reassignment within a school district. The results were also consistent with the findings of Rosen and Jerdee (1977) and Roncs (1983) who concluded from their research that older workers were considered significantly less employable than older workers with the same general qualifications.

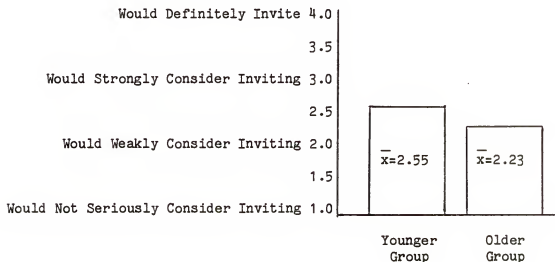


Figure 3

Influence of Age on Likelihood of Being Invited for an Interview

Findings Relative to Question Number 2

The second major question asked in the research study was as follows: What is the influence of the teaching applicant's sex upon employment screening decisions made by elementary school principals? Analysis of the data did not yield a significant main effect for sex (see Table 2) in that no significant difference was found between the overall

ratings for male versus female teaching applicants ($F=0.263$). Inspection of Figure 4 reveals that there was a slight overall preference for female applicants, but this difference did not approach statistical significance. Figure 4 shows that both male and female applicants received a mean rating about mid-way between "Would weakly consider inviting for an interview" and "Would strongly consider inviting for an interview."

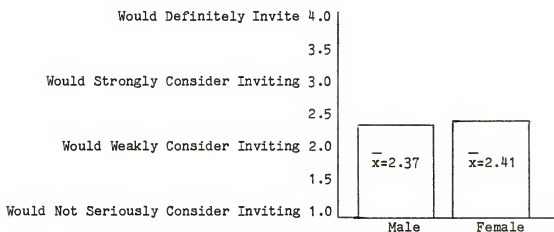


Figure 4

Influence of Sex on Likelihood of Being Invited for an Interview

The finding of no significant difference in principals' willingness to invite male or female applicants for an interview is rather interesting in view of the findings of previous research involving sex stereotypes and discrimination. Although much of the research suggested employment practices which generally discriminated against females (Ferber & Loeb, 1973; Fidell, 1970; Schmuck, 1975), several other studies suggested that the degree and type of sexual discrimination was very dependent on other factors within the employment situation, such as type of employment being sought (Macke, 1981), the competence of the employee versus sex (Hagen & Kahn, 1975), and the agreement of the sex of the

employee applicant with the generally accepted sex appropriateness of the position (Rosen & Jerdee, 1974). Cohen and Bunker (1975), for example, found that males tended to be discriminated against in hiring decision involving "female-oriented" positions while females tended to be discriminated against in hiring decisions involving "male-oriented" positions. Since elementary school teaching is usually considered to be a female-dominated occupation (Macke, 1981) one might expect a tendency for principals to prefer female applicants in their resume screening decisions. Although results of the study did indicate a slight tendency in this direction, it was not large enough to be considered statistically significant. It should be mentioned, however, that the variable of sex does become an issue when considered in relation to the physical attractiveness of the applicant. This is discussed in depth when addressing data related to Question 4 of the study.

Findings Relative to Question Number 3

The third major question asked in the study was "What is the influence of the teaching applicants' degree of physical attractiveness upon employment screening decisions made by elementary school principals?" Reference to Table 3 reveals that a significant main effect for physical attractiveness was found ($F=20.427$, $p < .01$). Figure 5 shows that applicants selected in the pilot study of attractiveness as possessing a high degree of physical attractiveness received higher ratings by principals than applicants selected as possessing a low degree of physical attractiveness (i.e., unattractive). Figure 5 also shows that attractive applicants received a mean rating about mid-way between "Would weakly consider inviting for an interview" and "Would strongly

consider inviting for an interview" while unattractive candidates received a mean rating just a bit above "Would weakly consider inviting for an interview." These results were very much in keeping with previous research regarding physical attractiveness stereotypes -- most of which indicated a significant bias in favor of individuals perceived as more physically attractive in employment situations (Cann, Siegfried, & Pearce, 1981; Cash, Gillen, & Burns, 1977; Dipboye, Fromkin, & Wilback, 1975).

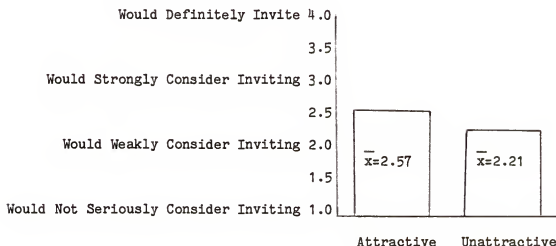


Figure 5

Influence of Physical Attractiveness on Likelihood of Being Invited for an Interview

Findings Relative to Question Number 4

The fourth major question asked in the study was "What is the effect of the interactions of the teaching applicants' age, sex, and physical attractiveness on screening decisions made by elementary school principals?" Referral to Table 2 reveals that there were three 2-way interactions (age X sex, age X attractiveness, and sex X attractiveness)

Table 3

Mean Ratings for Each Combination of Age by Sex Interaction

Age Group	Sex	
	Male	Female
Younger	2.49	2.62
Older	2.25	2.50

and one 3-way interaction (age X sex X attractiveness). These interaction effects will be discussed in the same order as they appear in Table 2.

The first interaction analyzed was the age by sex interaction. Table 3 shows the mean score for each combination of age and sex, and Figure 6 is a graphic representation of the interaction effect. Although Table 2 shows that the age by sex interaction was not statistically significant ($F=1.357$), it may be noted from Figure 6 that there was a slight tendency to rate older males higher than older females, and younger females higher than younger males.

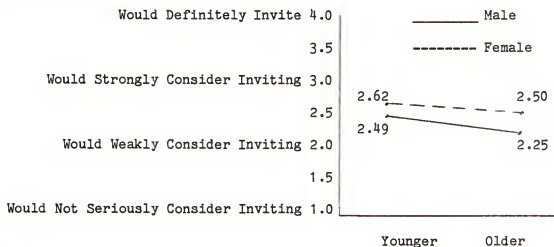


Figure 6

Interaction of Age and Sex on Likelihood of Being Invited for an Interview

The finding of no significant interaction between the age and sex of the hypothetical teaching applicants is rather difficult to interpret in relation to previous studies reviewed by the researcher -- primarily due to the fact that so little of the research has dealt with such an interaction. Several researchers have addressed the effect of an age and sex interaction in subjects of their studies of age or sex bias (Locke-Conner & Walsh, 1980; Mischel, 1974; Rosen & Jerdee, 1974), but none of the research reviewed directly addressed the question of an age by sex interaction of applicants in employment situations. Consequently, it must merely be stated that in this particular study, the interaction of age and sex of the employment applicant was not significant.

The second 2-way interaction, that of age by attractiveness, also did not reach statistical significance ($F=0.106$). Table 4 shows the mean ratings for the four combinations of this interaction and a graph of the interaction is shown in Figure 7. Referral to Figure 7 reveals that the lines produced are almost parallel -- thus indicating virtually no interaction effect whatsoever. Relating this finding back to previous

Table 4

Mean Ratings for Each Combination of Age by Attractiveness Interaction

Physical Attractiveness	Age	
	Younger	Older
Attractive	2.74	2.39
Unattractive	2.36	2.07

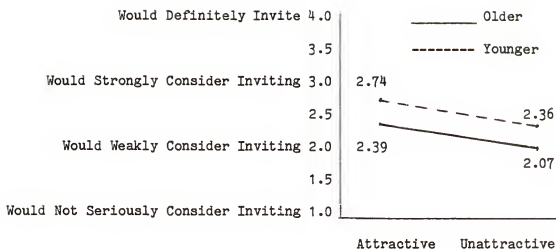


Figure 7

Interaction of Age and Attractiveness on Likelihood of Being Invited for an Interview

research, it must again be stated that there appears to be little precedent for use in interpretation. The one study reviewed that did examine a possible age by attractiveness interaction in subject ratings of supposed authors of various essays (Puckett, Petty, Cacioppo, & Fisher, 1983) also found no evidence of an age by attractiveness interaction using a 2x2x2 factorial analysis of variance.

Analysis of the third 2-way interaction, that of sex by attractiveness, did yield statistically significant results. Table 2 reveals this interaction to be significant at the .05 level of confidence ($F=4.796$). Mean ratings for the four combinations of sex by attractiveness are shown in Table 5, and a graphic representation of the interaction is presented in Figure 8. An analysis of Figure 8 reveals that there is a significant tendency to prefer attractive male applicants over attractive female applicants, and also over unattractive candidates of either sex. Reference to the mean ratings in does, however, show that when attractiveness is not taken into account, principals displayed a slight (not statistically significant) preference for females. Stated

another way, the data would seem to suggest that principals would prefer an attractive male most of all, but will choose an attractive or unattractive female over an unattractive male.

Table 5

Mean Ratings for Each Combination of Sex by Physical Attractiveness

Physical Attractiveness	Sex	
	Male	Female
Attractive	2.63	2.50
Unattractive	2.11	2.32

Although the nature of the interaction between sex and attractiveness may seem a bit unexpected when viewed in isolation, it may not be so difficult to understand when viewed in relation to past

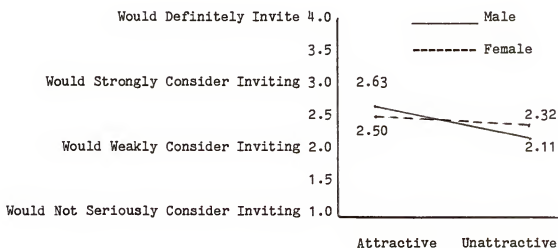


Figure 8

Interaction of Sex and Attractiveness on Likelihood of Being Invited for an Interview

research in Chapter II. Review of this earlier research reveals that although the overwhelming majority of the findings do indicate that attractive individuals are typically seen as more desirable and influential in a variety of social and employment situations (Bar-Tal & Saxe, 1976; Dion, Berscheid, & Walster, 1972; Cann, Siegfried, & Peirce, 1981), many studies noted that the precise nature of this preference for "attractive" individuals was mitigated by a number of other variables in the situation. Puckett, Petty, Cacioppo, and Fisher (1983), for example, found that when photographs of attractive and unattractive authors were varied in relation to the quality of their supposed essays, attractive authors were rated much more positively than unattractive authors when essay quality was good, but were viewed much more derogatively relative to unattractive authors when essay quality was poor. It does seem possible that a similar type of factor may have been operating between the attractiveness of the applicant and other more competency oriented factors (e.g., grade point average), with differential effects for male versus female applicants. Research by Dion and Berscheid (1974) may offer some further support for such a possibility. In their study of the effects of attractiveness in children using a rather sophisticated sociometric technique, it was discovered that in addition to the expected finding that attractive children were rated much more positively than unattractive children, male unattractive children, in particular, were more frequently nominated as having more serious and pervasive antisocial behaviors. Thus, it does seem reasonable that in certain situations, even for adults, the attractiveness variable may actually be accentuated for males, just as the results of the present research suggest.

Another possible explanation for the findings in the sex by attractiveness interaction which is related to the last point, but not

derived directly from the reviewed literature, is offered for consideration. This explanation revolves around the fact that there are a relatively small number of males as compared with females within the ranks of elementary school teachers. With the idea in mind that principals may very well see teacher applicants as potential role models for the children in their schools, and also keeping in mind the relatively small number of male teachers in most elementary schools to act as role models, it seems possible that having an attractive male as a role model may be even more important to some principals than having an attractive female role model. Moreover, having an unattractive male as a role model may be even less desirable than having an unattractive female role model -- particularly if there is, indeed, any tendency to see unattractive males as more antisocial than unattractive females as the research by Dion and Berscheid (1974) might suggest. Although certainly tentative and in need of verification or refutation by further research, this hypothesis might be a partial explanation of why the attractiveness factor is accentuated at both extremes in Figure 8.

The last interaction in the factorial analysis of variance is the 3-way interaction among the three independent variables of age, sex, and physical attractiveness. As can be seen in Table 6, this interaction effect did not reach statistical significance ($F=2.972$). Table 5 shows the mean ratings that were compared in order to test for significance, and a graphic representation of the interaction is presented in Figure 9. It may be noted that the dissimilar patterns formed by the two "simple" interactions do suggest a slight degree of 3-way interaction, although obviously not enough to be considered statistically significant.

Table 6

Mean Ratings for Variable Combinations Used in Computing the Interaction
Among Age, Sex, and Physical Attractiveness

Sex and Attractiveness	Age	
	Younger	Older
Attractive		
Male	2.83	2.43
Female	2.65	2.35
Unattractive		
Male	2.14	2.07
Female	2.58	2.06

Would Definitely Invite 4.0
3.5
Would Strongly Consider Inviting 3.0
2.5
Would Weakly Consider Inviting 2.0
1.5
Would Not Seriously Consider Inviting 1.0

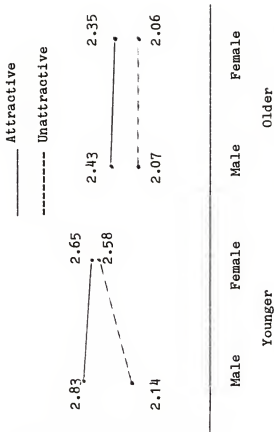


Figure 9

Interaction of Age, Sex, and Physical Attractiveness on Likelihood of Being Invited for an Interview

CHAPTER V SUMMARY AND IMPLICATIONS

Summary

The focus of the study was to investigate the job applicant screening process for classroom teachers in a large urban school district. Specifically, the study was focused on the following research questions:

1. What is the influence of the teaching applicants' age upon employment screening decisions made by elementary school principals?
2. What is the influence of the teaching applicants' sex upon employment screening decisions made by elementary school principals?
3. What is the influence of the teaching applicants' extent of physical attractiveness upon employment screening decisions made by elementary school principals?
4. What is the influence of the interactions of the teaching applicants' age, sex, and physical attractiveness on screening decisions made by elementary school principals?

No hypotheses were offered as to the specific nature or direction of the results of the study.

Subjects in the study were 69 elementary school principals from a single central Florida school district. Only two principals within the district did not participate in the study.

Resume materials used in the study consisted of eight basic resume forms with eight variations designed to factorially vary the levels of the three independent variables of age, sex, and physical attractiveness. Each of the independent variables had two levels: male versus female, younger versus older, and attractive versus unattractive. The attractiveness variable was transmitted via a photograph attached to the applicants' resume, and the two levels of attractiveness were defined by a pilot study in which junior college students were asked to rate the attractiveness of individuals depicted in photographs taken from college yearbooks.

Subjects in the study were asked to rate eight resumes representing all levels of the independent variables of age, sex, and physical attractiveness in terms of the likelihood that they would invite the applicant for an interview. Likelihood of being invited for an interview was the dependent measure in all questions addressed by the study. Analysis of the data yielded a significant main effect for age ($F=17.196$) and also for physical attractiveness ($F=20.427$). These main effects were significant at the .01 level. The direction of both significant main effects was generally consistent with the findings of the majority of the previous literature in that younger applicants were preferred to older applicants, and more physically attractive applicants were preferred to less physically attractive applicants. The only 2-way interaction found to be statistically significant was the interaction between the applicants' sex and extent of physical attractiveness ($F=4.796$, $p < .05$). The interaction was such that attractive males were preferred to unattractive males and all females, but unattractive males were preferred less than any other category. The 3-way interaction among

age, sex, and physical attractiveness did not reach statistical significance.

Implications

Implications for Employment Screening and Placement

Most research on employment practices suggest that job applicants are typically not evaluated solely on the basis of either a resume or an interview (Figler, 1977; Lipsett, 1972; Martin, 1970). In most cases, resumes, references, and other kinds of information have been reviewed by those in hiring positions before the actual interview takes place (Bonds, 1980). As a result of this screening phase, the prospective employer may form an initial impression that can significantly bias an interview. The research by Warr and Knapper (1966a) suggests that information received about a stranger often sets the stage for a mind set that will be quite resilient to change. Consequently, the findings of the present study may have practical employment implications in at least three different ways. First of all, the study may be viewed as an analog to the later interview process in that the same biases found in resume screening may also operate in the interview. Secondly, biases formed during resume screening may color the interviewer's impression of the applicant during the interview. Finally, there is the obvious implication that biases may unfairly eliminate equally qualified applicants before an interview is even held.

The results of this study suggest that elementary school principals may be susceptible to systematic errors in the judgment process in that equally qualified applicants had unequal chances of being invited to an employment interview. Furthermore, it may very well be that these

principals are not at all aware that they demonstrate such biases in their employment screening decisions. Rosen and Jerdee (1977) found very similar results as those found in this study with regard to a consistent employment bias on the part of business managers against older employees. However, when asked directly their opinions regarding management policies for older workers, most indicated that they strongly favored greater affirmative action in employment for that group. The authors concluded that the differential treatment of older workers was not deliberate, but the result of unconscious age stereotypes. Whether conscious or unconscious, however, the findings of that study would seem to have some rather direct implications for those involved with job screening and placement in education.

The findings of Rosen and Jerdee (1977) suggest the need for training of principals in order to guard against and/or be more aware of the role of false stereotypes (e.g., physical attractiveness stereotypes) through illusory correlation in person perception. Chapman and Chapman (1969) define illusory correlation as the phenomenon wherein one assumes a positive relationship between two factors (e.g., age and suitability for employment) when a negative relationship or no relationship is truly the case. Training for principals in more effective employment decision making might be approached in two ways. The first approach would involve university training of graduate students enrolled in educational administration courses in the theoretical and applied aspects of factors which impinge directly on the personnel selection process. A second approach, which might also be ancillary to the first, would involve inservice training designed to improve insight into the influence that human judgment and perception exert on the personnel selection process and the decision making process. Some potential rewards to be realized

through such training include fairer and more informed employee selection decisions, employment of the truly most qualified teachers, and avoidance of lawsuits citing unfair bias in employment selection practices.

It should be noted that an educational approach to the problem of selection bias is suggested rather than the use of explicit warnings against various types of discrimination for two reasons. The first reason is that there are simply too many possible selection biases to be addressed in any type of warning. The second reason is that warnings have not been shown to be effective in removing such biases. Siegfried (1982), for example, found that explicit warnings against sex discrimination (one of the more obvious sources of potential bias) had no overall positive effects. It was discovered that when warnings against sexual discrimination were included in employment resumes both male and female raters tended to boost ratings of male applicants while ratings of female applicants tended to remain rather stable. Siegfried hypothesized that raters reacted negatively to the warnings and used the boosting of male applicant ratings to transfer their negative feelings.

In addition to more extensive training for educational administrators in the area of employment practices and decision making, a collateral effort to train those individuals who may be applying for teaching positions in the art of job hunting seems to be in order. The finding of a consistent bias against unattractive applicants (particularly males) may be especially difficult to counteract in employment selection decisions due to the fact that unlike age and sex discrimination, it is not illegal. Bonds (1980) suggested that although many employment guides include information on preparing resumes, appropriate interview behaviors, and how to dress for an interview, more attention may need to be given by placement counselors to helping

unattractive job applicants compensate by this lack of attractiveness when seeking employment - even though some clients may resent such attempts. The results of the present study would certainly seem to support the need for more information and counseling for teacher applicants regarding the role of physical attractiveness in employment situations.

A final alternative designed to improve the employment selection process by eliminating unjustified bias seems worth mentioning. This alternative is one suggested by Odiorne (1970) and is essentially a plea to use research data to develop and implement a more rational basis for the focus of employment procedures. Odiorne suggested that there were four commonly used selection systems - all of which had significant flaws - and further suggested an approach emphasizing job objectives rather than job descriptions. Such an approach deemphasizes reliance on judgments related to non-relevant personal and psychological attributes of the job candidate. Although the present researcher is not necessarily prepared to endorse the suitability of that particular approach, it does seem very beneficial to constantly reexamine current employment selection philosophies and procedures.

Implications for Future Research

There are certainly an enormous number of directions for future research in the general area of personnel selection and placement. It is, however, feasible to discuss in this section only a few of those implications which have a rather direct relationship to the study at hand. Even with this limitation in mind, there are still a number of methodological refinements and logical extensions which come to mind.

One possible methodological improvement of the study would be to ask principals to rank-order applicant resumes as well as rate them. In

addition to mitigating the tendency of some principals to rate all applicants the same, such an approach would tend to increase the realism of the study due to the fact that principals would be forced to choose one applicant over another - just as is usually the case in real life employment situations.

There are several extensions to the present study which might be addressed by future research. One logical extension would be to investigate the extent to which personal and psychological data included in pre-interview information produces a "halo" effect (negative or positive) which influences the interviewers' final impression of the job applicant. Another rather obvious extension would be to investigate the influence of other applicant variables, such as marital status, training institution, hobbies and interests, in screening decisions made by principals.

One extension to the present study already alluded to in the discussion of the significant interaction between sex and physical attractiveness is of particular interest to the researcher. This extension involves the investigation of the possibility that elementary education may be rather unique as compared with most other professions in that principals making employment decision may consider the applicants potential as a role model a very significant factor. The first part of this question, whether or not principals do see teacher applicants as potential role models, might be investigated in a rather simple and straightforward manner by simply listing "role model" among other factors and asking a large group of principals which factors they see as most salient in making hiring decisions. The logical second question of which factors for what groups of applicants (e.g., males versus females, blacks

versus white) are seen as most critical would undoubtedly require a much more complex method of investigation.

The last suggestion for future research is the investigation of the interaction between personal and psychological variables of the teaching applicant and the personological variables of the principals (or others) making the employment decisions. Any number of independent variable combinations come to mind for both principals and applicants, such as age, sex, race, scores on various attitude surveys, and educational background. Such research would take the present study a step closer to a more naturalistic approach, which may have increased relevance for individuals actually involved in employment selection decisions.

REFERENCES

- Age Discrimination in Employment Act of 1967, 29 U.S.C. 621 et seq.
- Albermarle Paper Company v. Moody, 422 U.S. 405 (1975).
- Ary, D., Jacobs, L. C., & Razavieh, A. (1979). Introduction to research in education (2nd ed.). New York: Holt, Rinehart and Winston.
- Asch, P., & Kroeker, L. P. (1975). Personnel selection, classification, and placement. Annual Review of Psychology, 26, 481-507.
- Asch, S. E. (1946). Forming impressions of personality. Journal of Abnormal and Social Psychology, 21, 258-290.
- Astin, H. S. (1972). Employment and career status of women psychologists. American Psychologist, 27, 371-381.
- Baroni, B. J. (1981). Age discrimination in employment: Some guidelines for employers. Personnel Administrator, 26, 97-101.
- Bar-Tal, D., & Saxe, L. (1976). Perceptions of similarly and dissimilarly attractive couples and individuals. Journal of Personality and Social Psychology, 33, 772-781.
- Bergman, J. (1980). Ageism in today's society and schools. Contemporary Education, 51, 197-201.
- Bittner, R. H., & Rundquist, E. A., (1950). The rank-comparison rating method. Journal of Applied Psychology, 34, 171-177.
- Bonds, G. O. (1980). The influence of race, sex, physical attractiveness and competency on evaluation of job applicants. Dissertation Abstracts International, 41, 1148B. (University Microfilms No. 80-21, 030)
- Butler, R. N. (1980). Ageism: A forword. Journal of Social Issues, 36(2), 8-11.
- Byrne, D., London, O., & Reeves, K. (1968). The effects of physical attractiveness, sex, and attitude similarity on interpersonal attraction. Journal of Personality, 36, 254-271.
- Cann, A., Siegfried, W. D., & Pearce, L. (1981). Forced attention to specific applicant qualifications: Impact on physical attractiveness and sex of applicant biases. Personnel Psychology, 34, 65-75.

- Cash, F., Gillen, B., & Burns, D. (1977). Sexism and "beautyism" in personnel consultant decision making. Journal of Applied Psychology, 62, 301-310.
- Cecil, E. A., Paul, R., & Olins, R. (1973). Perceived important of selected variables used to evaluate male and female job applicants. Personnel Psychology, 26, 207-304.
- Chapman, L. J., & Chapman, J. P. (1969). Illusory correlation as an obstacle to the use of valid psychodiagnostic signs. Journal of Abnormal Psychology, 74, 271-280.
- Cohen, S. L., & Bunker, K. A. (1975). Subtle effects of sex role stereotypes on recruiter's hiring decisions. Journal of Applied Psychology, 60, 566-575.
- Deaux, K. (1976). Sex: A perspective on the attribution process. In S. H. Harvey, W. J. Ickes, & R. F. Kidd (Eds.), New directions in attribution research (pp. 335-353). New York: Halsted Press.
- Dion, K. K., & Berscheid, E. (1974). Physical attractiveness and peer perception among children. Sociometry, 37(1), 1-11.
- Dion, K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. Journal of Personality and Psychology, 24, 285-290.
- Dion, K., & Stein, S. (1978). Physical attractiveness and interpersonal influence. Journal of Experimental Social Psychology, 14, 97-108.
- Dipboye, R. L., Arvey, R. D., & Terpstra, D. E. (1976). Equal employment and the interview. Personnel Journal, 55, 520-523.
- Dipboye, R., Arvey, R., & Terpstra, D. (1977). Sex and physical attractiveness of raters and applicants as determinants of resume evaluations. Journal of Applied Psychology, 62, 288-294.
- Dipboye, R., Fromkin, H., & Wilback, K. (1975). Relative importance of applicant sex, attractiveness, and scholastic standing in evaluation of job applicant resumes. Journal of Applied Psychology, 60, 39-43.
- Equal Employment Opportunity Act of 1972, P.L. 92-261, 86 Stat. 103.
- Equal Employment Opportunity Commissions (1970). Guidelines on employment selection procedures. Federal Register, 35, 12333-b.
- Ferber, M. A., & Loeb, J. W. (1973). Performance, rewards, and perception of sex discrimination among male and female faculty. American Journal of Sociology, 78, 995-1002.
- Fidell, L. S. (1970). Empirical verification of sex discrimination in hiring practices in psychology. American Psychologist, 25, 1094-1098.
- Figler, H. R. (1977). How to hire on executive intelligently. Personnel Journal, 56, 351-353.

- Fischbein, M. (1967). A behavior theory approach to the relations between beliefs about an object and the attitude toward the object. In M. Fischbein (Ed.), Readings in attitude theory and measurement (pp. 477-492). New York: Wiley.
- Fischhoff, B. (1976). Attribution theory and judgement under uncertainty. In J. Harvey, W. Ickes, & R. Kidd (Eds.), New directions in attribution research (pp. 421-452). New York: Wiley.
- Griggs vs. Duke Power Co., 401 U.S. 424 (1971).
- Hagen, R., & Kahn, A. (1975). Discrimination against competent women. Journal of Applied Social Psychology, 5, 262-267.
- Jones, E., Kanouse, D., Killey, H., Nisbett, R., Valins, S., & Weiner, B. (1971). Attribution: Perceiving the cause of behavior. Morristown, NJ: General Learning Press.
- Kaplan, M., & Schwartz, S. (1977). Human judgment and decision process in applied settings. New York: Academic Press.
- Kasschau, P. L. (1976). Perceived age discrimination in a sample of aerospace employees. Gerontologist, 16, 166-173.
- Kerlinger, F. N. (1973). Foundations of behavioral research (2nd ed.). New York: Holt.
- Kimbrough, R. B., & Nunnery, M. Y. (1983). Educational administration (2nd ed.). New York: MacMillan.
- Lawler, E. E. (1973). Motivation in work organizations. Monterey, CA: Brooks/Cole.
- Lipsett, L. (1972). Selecting personnel without tests. Personnel Journal, 51, 648-654.
- Locke-Conner, C., & Walsh, R. P. (1980). Attitudes toward the older job applicant: Just as competent, but more likely to fail. Journal of Gerontology, 35, 920-927.
- Lynch, J. (1975). Equal opportunity or lip service: Sex-role stereotyping in the schools. The Elementary School Journal, 76(1), 20-23.
- Macke, A. S. (1981). Token men and women. Sociology of Work and Occupations, 8(1), 25-38.
- Martin, R. A. (1970). Our primitive employment process. Personnel Journal, 49, 117-122.
- McQuaig, J. H. (1972). What to look for when you're hiring. Supervising Management, 17(1), 17-23.
- Meyers, J. L. (1979). Fundamentals of experimental design. Boston: Allyn & Bacon.

- Miller, A. G. (1970). Role of physical attractiveness in impression formation. Psychonomic Science, 19, 241-243.
- Mills, J., & Aronson, E. (1965). Opinion change as a function of the communicator's attractiveness and desire to influence. Journal of Personality and Social Psychology, 1, 173-177.
- Mischel, H. N. (1974). Sex bias in the evaluation of professional achievements. Journal of Educational Psychology, 66, 157-166.
- Novick, M. R., & Ellis, D. (1977). Equal opportunity in education and employment selection. American Psychologist, 32, 306-320.
- Odiorne, G. S. (1970). Selection by objectives. Personnel Journal, 49, 117-122.
- Orange County Public Schools (1985). Facts on the Orange County Public School System. Orlando, FL.
- Puckett, J. M., Petty, R. E., Cacioppo, J. T., & Fischer, D. L. (1983). The relative impact of age and attractiveness stereotypes on persuasion. Journal of Gerontology, 38, 340-343.
- Purcell, D. E., & Torrence, W. D. (1980). The older woman and her search for employment. Aging and Work: A Journal on Age, Work, and Retirement, 3, 121-128.
- Rones, R. L. (1983). The labor market problems of older workers. Monthly Labor Review, 106(5), 3-12.
- Rosen, B., & Jerdee, T. H. (1974). Influence of sex role stereotypes on personnel decisions. Journal of Applied Psychology, 59, 9-14.
- Rosen, B., & Jerdee, T. H. (1976). The nature of job-related stereotypes. Journal of Applied Psychology, 61, 180-183.
- Rosen, B., & Jerdee, T. H. (1977). Too old or not too old. Harvard Business Review, 55(6), 97-106.
- Schmuck, P. A. (1975). Deterrents to women's careers in school management. Sex Roles, 1, 339-353.
- Seyfarth, J. T., & Bost, W. A. (1982). Prejudice in the principals' office: administrator attitudes toward older teachers. The High School Journal, 65, 157-162.
- Shaffer, D., & Wexley, C. (1974). Success orientation and sex role congruence as determinants of the attractive competent woman. Journal of Personality, 42, 586-600.
- Siegel, J. (1980). Personnel testing under EEO. New York: AMACOM.
- Siegfried, W. D. (1982). The effects of specifying job requirements and using explicit warning to decrease sex discrimination in employment interviews. Sex Roles, 8(1), 73-82.

- Spence, J., & Helmreich, R. (1972). Who likes competent women? Journal of Applied Social Psychology, 2, 197-213.
- Stroebe, W., Insko, C. A., Thompson, V. D., & Layton, B. D. (1971). Effects of physical attractiveness, attitude similarity, and sex on various aspects of interpersonal attraction. Journal of Personality and Social Psychology, 18, 79-91.
- Thorndike, E. L. (1920). A constant error in psychological rating. Journal of Applied Psychology, 4, 25-29.
- Thornton, G. R. (1943). The affect upon judgements of personality traits of varying a single factor in a photograph. Journal of Social Psychology, 18, 127-148.
- Vroom, V. H. (1964). Work and motivation. New York: Wiley.
- Wahba, M. A., & House, R. J. (1974). Expectancy theory in work and motivation: Some logical and methodological issues. Human Relations, 27, 121-147.
- Warr, P. B., & Knapper, C. (1966a). The role of expectancy and communication content in indirect person perception. British Journal of social and Clinical Psychology, 5, 244-253.
- Warr, P. B., & Knapper, C. (1966b). The relative importance of verbal and visual information in indirect person perception. British Journal of Social and Clinical Psychology, 5, 118-127.

APPENDIX A

PILOT STUDY OF PHYSICAL ATTRACTIVENESS

Four groups of photographs were selected from college yearbooks. There were 10 photographs in each group. The first group of photographs depicted young males. The second group depicted older males. The third group depicted young females, and the fourth group depicted older females. In selecting the initial photographs to be rated, photographs of individuals who were very unusually dressed, who possessed gross facial deformities, or who displayed obviously hostile or unhappy expressions were eliminated. This was done primarily in order to increase the applicability of the study findings to typical employment situations. Each photograph that was rated was identified by a number (1-10 in each group). The photographs were then oriented in numerical order.

Students from an undergraduate psychology class in a junior college were used as raters ($N=24$). Ages of the students ranged from 20 to 48, and the number of males vs. females was approximately equal. The students rated the photographs of the young males first, older females second, older males third, and younger females fourth. The photograph were judged in a single setting.

The experimenter explained to the class that the concept of attractiveness versus unattractiveness was the one factor to be considered. After the raters had placed all photographs within the first group to be rated in a column, the experimenter asked each rater to select the most attractive photograph and place it at the top of the new column. The experimenter then asked the group members to select the least attractive photograph and place it at the bottom of the new column. Raters then placed the most attractive photograph remaining in the original column directly under the one previously placed at the top of

the new column, and placed the least attractive photograph remaining in the original column directly over the photograph previously placed at the bottom of the new column. This process was continued until all photographs had been placed into the new column, resulting in a rank-ordering of photographs from most to least attractive. The raters were then asked to make a final check of their choices and make any adjustments felt to be necessary. This process was repeated for each of the three remaining groups of photographs. The eight photographs used in the study were selected on the basis of high inter-rater agreement.

APPENDIX B

EXAMPLE OF ONE BASIC RESUME WITH THE RESULTANT EIGHT VARIATIONS FOR AGE, SEX, AND PHYSICAL ATTRACTIVENESS

As noted in the text, this is one basic resume with the resultant eight variations. There were seven additional basic resumes, also with eight variations. A total of 64 resume variations were used in the study. This enabled other variables, such as grade point average and years of experience, to be systematically varied in relation to the three independent variables investigated in the study.

PERSONAL DATA

Name:	Carolyn Metzler	Photograph
Age:	45	of Older
Place of Birth:	South Bend, Indiana	Unattractive
Marital Status:	Single	Female
Home Address:	486 Blair Ct. Drive	
	Charlotte, North Carolina 41161	
Home Phone:	704-641-8441	

JOB OBJECTIVE

Elementary Education Instructor

EDUCATION

University of Virginia B.A., Major - Psychology

Ohio State University M.Ed., Major - Elementary Education

Undergraduate G.P.A. - 2.1

Graduate G.P.A. - 3.0

RECENT WORK EXPERIENCE IN EDUCATION

1982-83	Sixth grade teacher at Highland Elementary School, College Corner, Ohio
1983-86	Sixth grade teacher at Oak Creek Elementary School, Charlotte, North Carolina

CERTIFICATES

Ohio State teaching certificate - grades Kindergarten through 8

Teaching Certificate, North Carolina Department of Public
Instruction - grades Kindergarten through 6

Applying for Florida State teaching certificate - grades
Kindergarten through 6

HOBBIES AND INTERESTS

Boating, Horseback Riding, Ceramics, and Bridge

REFERENCES

Forwarded on Request

PERSONAL DATA

Name:	Carolyn Metzler	Photograph of Older Attractive Female
Age:	45	
Place of Birth:	South Bend, Indiana	
Marital Status:	Single	
Home Address:	486 Blair Ct. Drive Charlotte, North Carolina 41161	
Home Phone:	704-641-8441	

JOB OBJECTIVE

Elementary Education Instructor

EDUCATION

University of Virginia B.A., Major - Psychology

Ohio State University M.Ed., Major - Elementary Education

Undergraduate G.P.A. - 2.1

Graduate G.P.A. - 3.0

RECENT WORK EXPERIENCE IN EDUCATION

1982-83 Sixth grade teacher at Highland Elementary School,
College Corner, Ohio

1983-86 Sixth grade teacher at Oak Creek Elementary School,
Charlotte, North Carolina

CERTIFICATES

Ohio State teaching certificate - grades Kindergarten through 8

Teaching Certificate, North Carolina Department of Public
Instruction - grades Kindergarten through 6

Applying for Florida State teaching certificate - grades
Kindergarten through 6

HOBBIES AND INTERESTS

Boating, Horseback Riding, Ceramics, and Bridge

REFERENCES

Forwarded on Request

PERSONAL DATA

Name:	Carolyn Metzler	<hr/> Photograph of Younger Unattractive Female <hr/>
Age:	29	
Place of Birth:	South Bend, Indiana	
Marital Status:	Single	
Home Address:	486 Blair Ct. Drive	
	Charlotte, North Carolina 41161	
Home Phone:	704-641-8441	

JOB OBJECTIVE

Elementary Education Instructor

EDUCATION

University of Virginia B.A., Major - Psychology

Ohio State University M.Ed., Major - Elementary Education

Undergraduate G.P.A. - 2.1

Graduate G.P.A. - 3.0

RECENT WORK EXPERIENCE IN EDUCATION

1982-83	Sixth grade teacher at Highland Elementary School, College Corner, Ohio
1983-Present	Sixth grade teacher at Oak Creek Elementary School, Charlotte, North Carolina

CERTIFICATES

Ohio State teaching certificate - grades Kindergarten through 8.

Teaching Certificate, North Carolina Department of Public
Instruction - grades Kindergarten through 6

Applying for Florida State teaching certificate - grades
Kindergarten through 6

HOBBIES AND INTERESTS

Boating, Horseback Riding, Ceramics, and Bridge

REFERENCES

Forwarded on Request

PERSONAL DATA

Name:	Carolyn Metzler	Photograph
Age:	29	of Younger
Place of Birth:	South Bend, Indiana	Attractive
Marital Status:	Single	Female
Home Address:	486 Blair Ct. Drive	
	Charlotte, North Carolina 41161	
Home Phone:	704-641-8441	

JOB OBJECTIVE

Elementary Education Instructor

EDUCATION

University of Virginia B.A., Major - Psychology

Ohio State University M.Ed., Major - Elementary Education

Undergraduate G.P.A. - 2.1

Graduate G.P.A. - 3.0

RECENT WORK EXPERIENCE IN EDUCATION

1982-83	Sixth grade teacher at Highland Elementary School, College Corner, Ohio
1983-Present	Sixth grade teacher at Oak Creek Elementary School, Charlotte, North Carolina

CERTIFICATES

Ohio State teaching certificate - grades Kindergarten through 8.

Teaching Certificate, North Carolina Department of Public
Instruction - grades Kindergarten through 6

Applying for Florida State teaching certificate - grades
Kindergarten through 6

HOBBIES AND INTERESTS

Boating, Horseback Riding, Ceramics, and Bridge

REFERENCES

Forwarded on Request

PERSONAL DATA

Name:	Frederick Metzler	Photograph
Age:	45	of Older
Place of Birth:	South Bend, Indiana	Attractive
Marital Status:	Single	Male
Home Address:	486 Blair Ct. Drive	
	Charlotte, North Carolina 41161	
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Kindergarten through 6

HOBBIES AND INTERESTS

Carpentry, Fishing, Bicycle Riding, and Record Collecting

REFERENCES

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REFERENCES

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APPENDIX C

INSTRUCTIONS TO PRINCIPALS FOR RATING RESUMES

Instructions

Please consider all applicants described in the eight enclosed resumes as applicants for a regular teaching position in grades kindergarten through six - without reference to a particular grade level within this range. Stapled to each resume is a rating sheet on which you are asked to indicate the likelihood that you would ask this applicant for a full, face-to-face interview. Please rate the resumes in the order that they arranged in your packet, and please review each resume carefully in order to make your determination. The ratings made by you are strictly anonymous, and you are requested not to discuss these ratings with anyone else. Please try to be as honest and realistic in your ratings of the applicant as you can.


After you have rated all eight resumes, please place all materials back into the large clasp envelopes and return this envelope to your area director. Thanks very much for your help.

BIOGRAPHICAL SKETCH

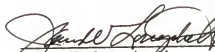
George William Oglesby was born March 5, 1949 in Evansville, Indiana. In 1967, he graduated from North High School, also in Evansville. He graduated with a Bachelor of Arts degree from Indiana State University in 1971 with a major in psychology, and went on to attend graduate school at Indiana State University where he graduated in 1972 with a Master of Science degree in school psychometry. After graduate school, he was employed as a school psychometrist in Connersville, Indiana for one year. From 1973 to date, he has been employed as a school psychologist for the Orange County Public Schools in Orlando, Florida.

George Oglesby is the son of Earl and Grace Oglesby and has one sister, Carolyn.


I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.


Michael Y. Nunnery
Professor of Educational
Leadership, Chairman

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.


James W. Longstreth
Associate Professor of
Educational Leadership

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.


Charles J. Forgnone
Professor of Special
Education

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Education.

December 1986


Dean, College of Education

Dean, Graduate School